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Manhattan

26″ / 28″

User Manual

DRUMMER
"RIDE TO YOUR OWN BEAT"

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Please keep this manual properly after reading it.

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Warnings

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Refrain from the following activities as they may cause injury and damage to your bike!

1. Please regularly clean metal parts of electric bicycle. Use neutral detergent and cloth to gently wipe the dirty place, then wipe with a dry cloth and lubricate the related accessories.
2. Regularly check the joints of frame, front fork, handler bar, brake and shock absorber for any looseness or damage.
3. Battery should be stored in dark and dry place and be charged at least one time a month in case of long-term non-use.
4. Please do not dismantle the bicycle body, controller, LCD display randomly. Do not replace any spare parts by yourself to avoid any danger or bicycle damage while using.
5. The bicycle structure highly interacts with its function. Any private reconstruction or replacement of components will affect normal operation and safety performance of the bicycle, or shorten its service life.
6. Inserting any metal object (like wire, copper coin, clip etc.) into the terminals is prohibited.
7. The used battery module when replaced is prohibited to be discarded in the source of fire or high temperature environment. Please return it to the dealer for recovery.
8. Don’ t drop or strike battery module. Huge external force will damage battery case, the internal and the protection circuit, and the safety of the user cannot be guaranteed.
9. Using the non-original exclusive charger is prohibited. If the other brand charger is used, adverse impacts will be incurred to the battery module, and the warranty will be void.
10. Keep the lithium battery module dry, and placing the battery module in the water is forbidden.
11. Conducting the fire and water resistance test for lithium battery module and charger is forbidden.
12. The lithium battery module is designed specifically for the electric bicycle and prohibit the use of other products.
13. When hands are wet, do not touch the power cord or plug.
14. Do not polish, drill or carve marks on bicycle body. Large scratch, puncture, or carve may lead to cracks. If these exist, pay attention to the areas, or replace with new accessories.
15. Do not install seat for child, for it may cause damage to the bicycle.

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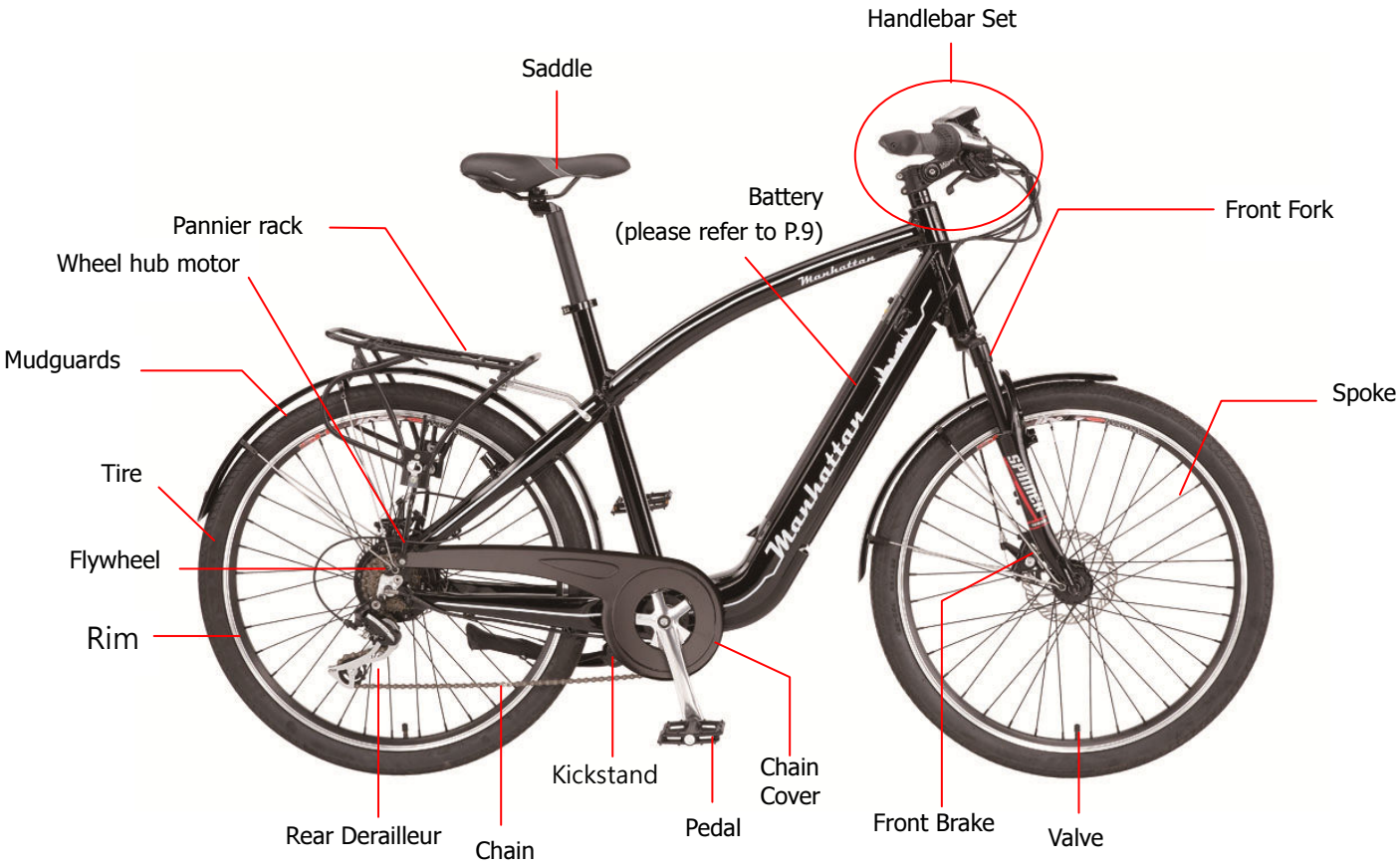
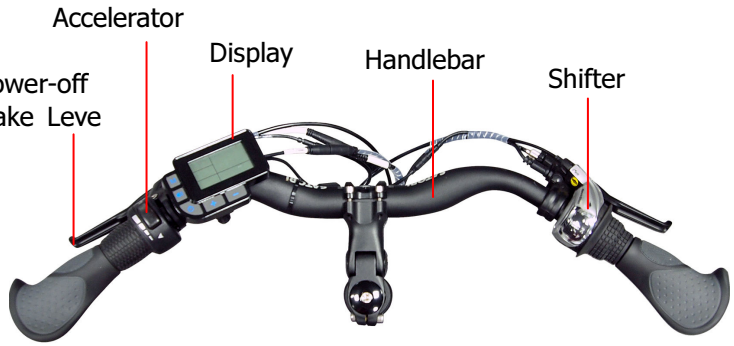
About Power Assist Electric Bicycles

■Product Components and Description



Angle-Adjustable handlebar :



■Attachments

1. Charger
2. Owner's Manual
3. Battery Lock Key 1 set (Total 2 piece)

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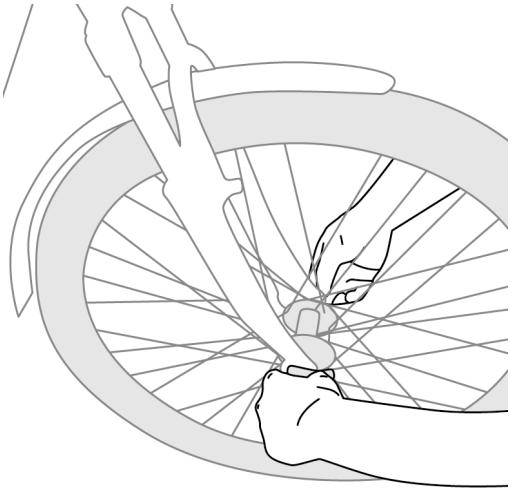
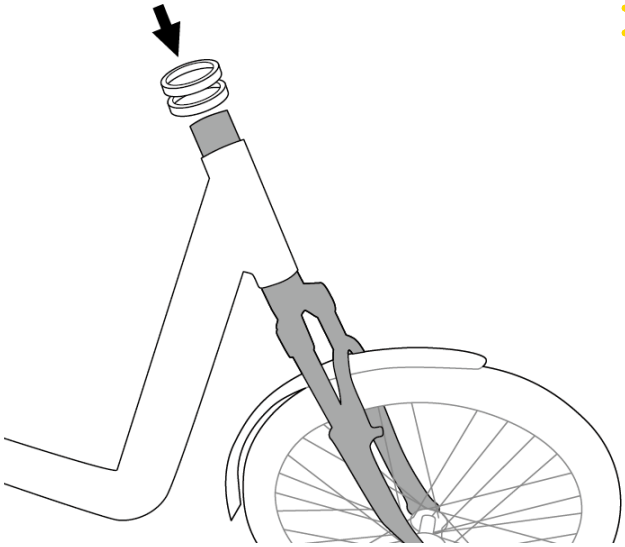
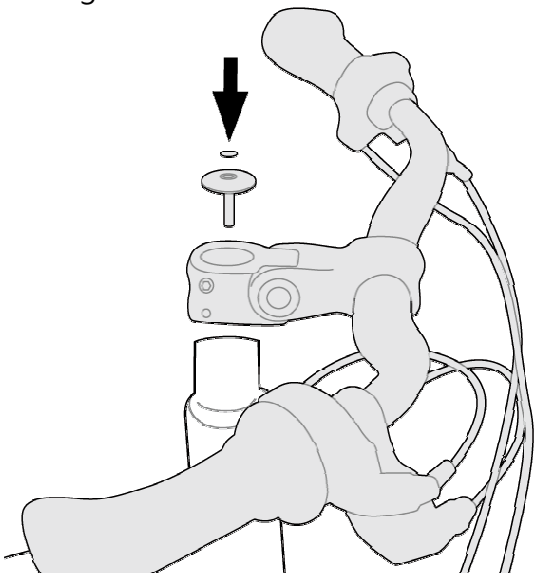
Installation



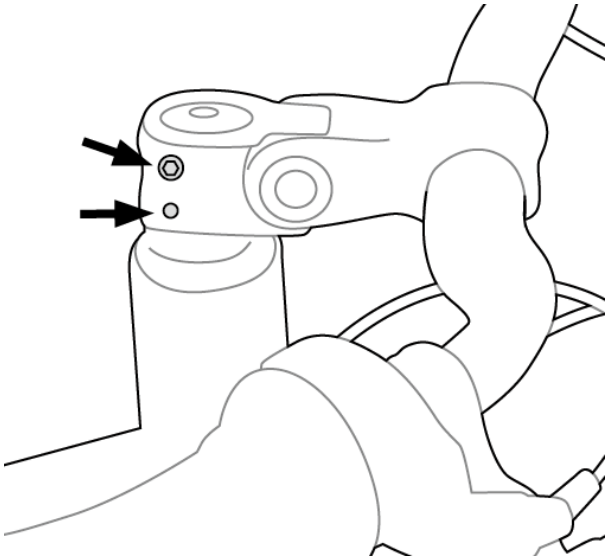
Step.1 Fix the front wheel onto front fork and confirm the quick-disassemble has been tightened



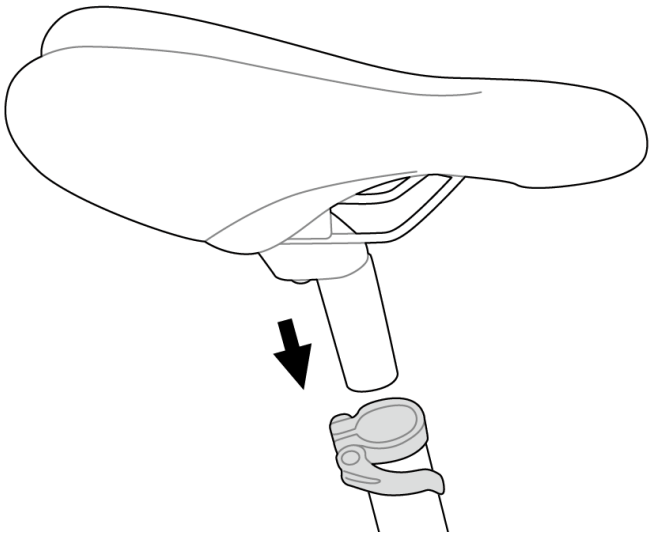
Step.2 Fix front fork into the main-body and then put 2 iron plates



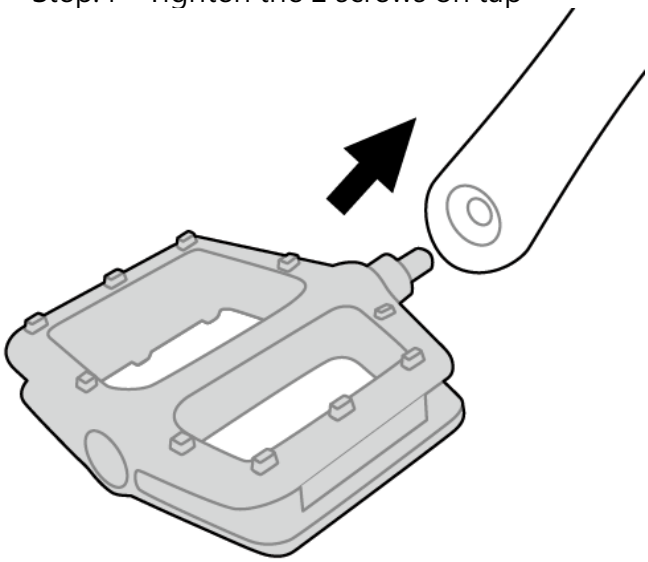
Step.3 Put the tap and screw by turn, then tighten and put into plastic cover



Step.4 Tighten the 2 screws on tap



Step.5 Put the seat well and confirm to tighten quick-disassemble



Step.6 Assemble the foot pedal with tool to finish the assembling.

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Check before Riding

■Check before riding

1. Saddle height position: It is important to adjust the seat to a suitable height. when the pedal is at the lowest position, sit on the saddle and step on the pedal. If your leg can fully extend, you are at the optimal seat height. If your toe and leg can not fully extend it will result in fatigue and can cause injury.

[1]Tire Specifications and maintenance

(1): Tire Pressure: Generally it will be marked on the edge of the tire

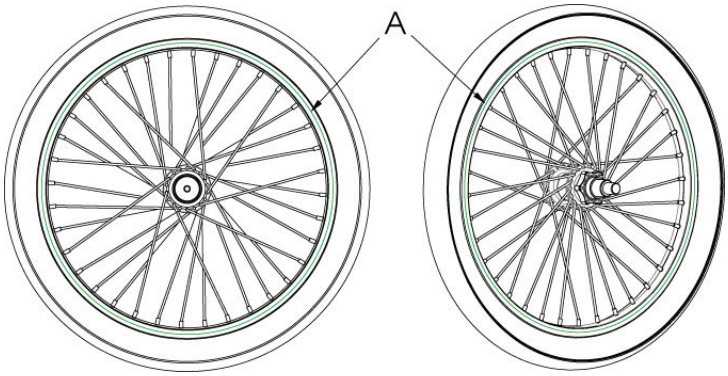
(2): Tire tread inspection: .When tires have lost their tread replace it.

[2]Wheel Rim Specifications

(1): Wheel rim spec: Aluminum alloy, double layer, 36 holes

(2): Wheel rim inspection: Wheel rim where is caused during braking. Wheel rim has a safety line to indicate the level of use. When safety line has been worn out, please replace the wheel rim.

(3): Wheel rim distortion inspection: Wheel rim distortion can cause the wheel to wobble.



■Check before riding

4. Brake inspection:

[1]Clearance between brake block and wheel rim inspection: The distance between brake block and wheel rim should be between 1-3mm. When brake block is worn down, replace it to ensure proper braking. When riding in wet weather stopping time is increased. Adjust your speed accordingly and allow for additional stopping distance.

[2]Brake handle grip adjustment: When you stopping brake handle should depress about half way towards the grip, if brake handle extends closer to the grip, the space between brake block and wheel rim is too great and should be adjusted accordingly.

[3]Brake inner wire: Outlet end of brake inner wire should avoid fork. Cover brake wire end with an aluminum cap. You should apply lubricant to brake wire periodically to maintain smooth action and prevent rust.

[4]Do not apply lubricant to brake.

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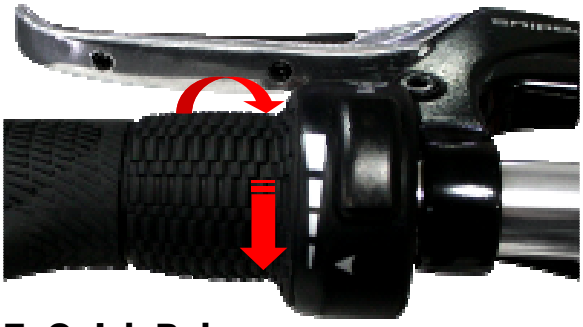
Shift Grip：Style of speed changing handle bar: Rotary (Grip Shift) 7 speeds

6. Throttle (In the 100% electric power mode)



Rotate the (left) grip of throttle downward to make bike go forward and loose the grip to slow down the bike. If your loose the grip completely, the bike will stop power output. While riding, accelerate the bike slowly to maintain riding safety. It's advised that all power supply is shut down if you stop the bike, to prevent from operating the throttle improperly and micro power consumption of battery.

7. Quick Release

Please make sure the quick release is tightened.

a. Front Wheel

Released

Tightened

b. Seat Post

Released

Tightened

8. Other attachment: Reflectors

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While riding your bike, please observe below points for your safety:

Precautions before Riding:

1. Wear the helmet before riding.
2. Wear bright but not over-generous clothes to prevent them from involved in the operating components.
3. Check the brakes and body parts for brake failure and parts looseness or wastage.
4. Make sure the wheels are securely fixed.
5. Check that the tires are cracked, damaged, or abnormally worn. Following the label on the tires, maintain the tire pressure within the range indicated. Check the wheels are deformed.
6. Unplug the Key and keep it safe to avoid lose and also to prevent breakage due to collision while riding.
7. The total load must not exceed 100 kg (people and objects).
8. Carry spare consumables before riding: tires, inner tubes and brake blocks ... etc.
9. Install the lights when riding at night. When riding on public roads, please use the illumination lights and reflectors in accordance with the provisions of the national laws and regulations.

Precautions When Riding:

1. When riding, if abnormal condition or parts damage occur affecting riding safety, do not continue riding. Check the main area to do the appropriate troubleshooting.
2. When riding, prohibit let go riding or stunts.
3. Warning: in rain or wet weather, slippery road surfaces may increase braking distance.
4. Do not ride on rough road, to avoid damage or puncture to the electric bicycle.
5. Continuous climbing will cause the temperature rise of motor and the motor will not provide the power for self-protection.
6. When riding, prohibit let go riding or stunts.
7. Adjust the auxiliary power according to the road conditions, and do not use auxiliary power during downhill in order to avoid danger.
8. For safety reasons, do not ride in heavy rain, snow, and strong winds.
9. Please stay away from puddles. If the water level reaches motor, the circuit of motor will be damaged by water.

CAUTION

If the power assist electric bicycle has any damage or needs adjustment, please contact the where you purchased it. Don’t repair by yourself. Repairs of power assist electric bicycle should be preformed by trained professionals with the correct tools. Improper repair will result in damage of the bicycle or serious accidents.

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Power Assist System Check (1)

- Power assist system will not work normally if the battery is not installed and locked in place.
- Check battery status before riding
- Ensure all wires are good and all connections are securely locked and fastened.
- Don't disassemble the bodywork, controller and panel without proper instruction.

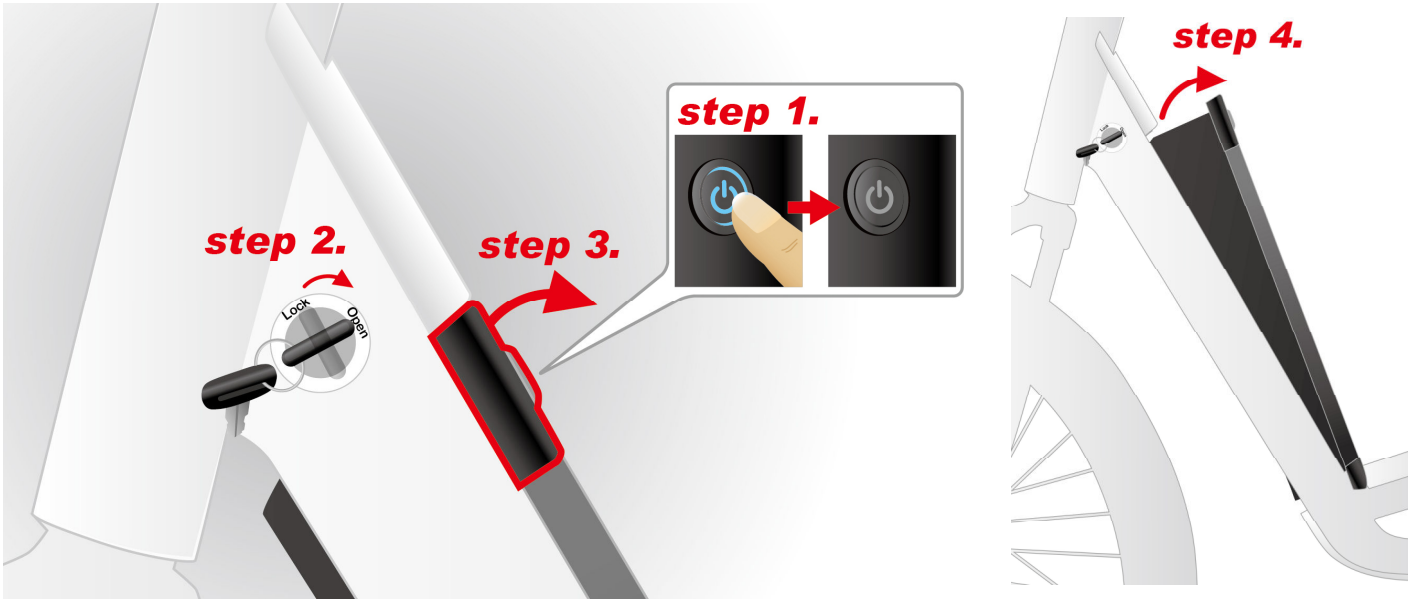
■ Power Assist System Check (2) *Battery Lock Function and Operation*

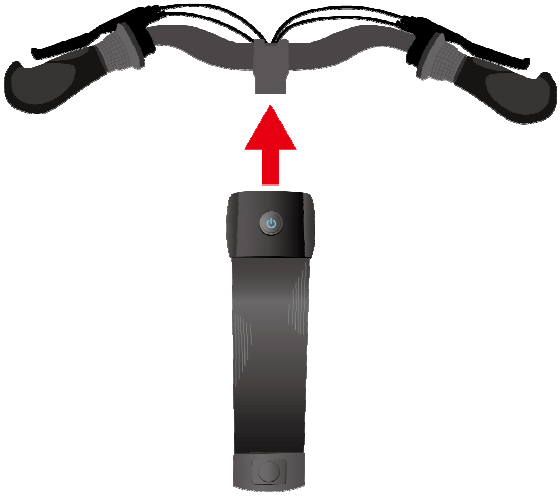
CAUTION :

- Put the battery into the frame and check whether it is inserted securely.
- Don't remove the battery while starting the power
- When inserting the battery, listen for a click to indicate it was inserted correctly

●Battery taking out steps

1. Turn off power
2. Turn the key towards to open and do not release
3. Pull the battery as figure showing
4. Take out battery





●Correct Position of Battery:

Stem handle is in the front

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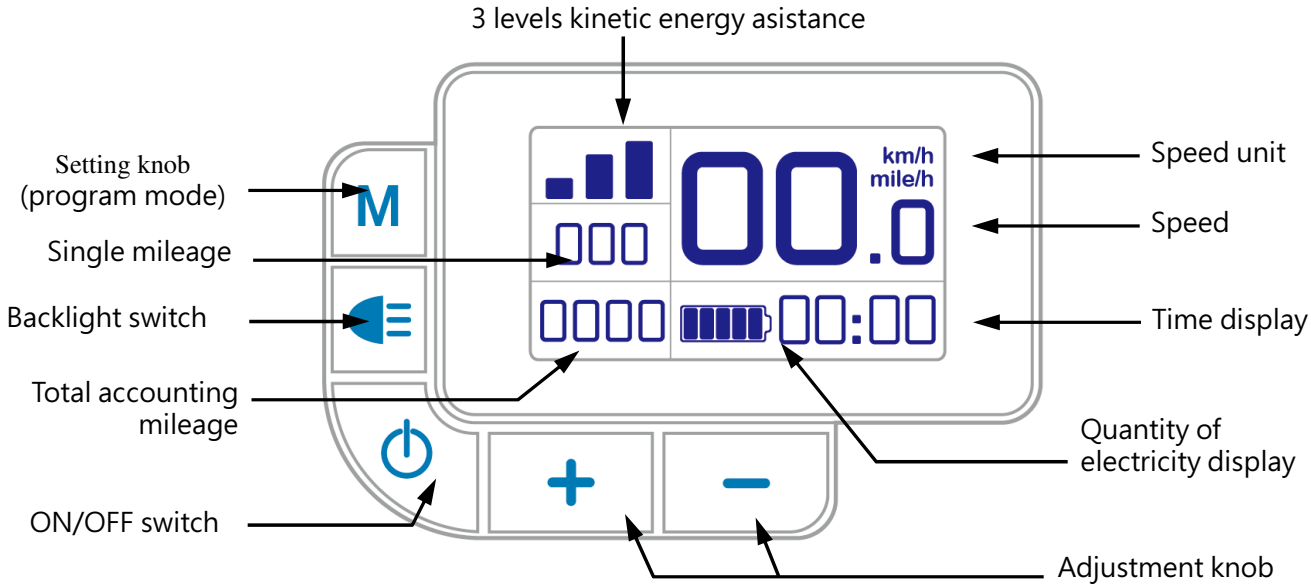
Power Assist System Check (3) *LED control system*

1. DISPLAY WINDOWS



Power display light	Flash and please do not start motor	1Bar	2Bar	3Bar	4Bar	5Bar
Electricity quantity	10% ↓	10%	30%	50%	70%	90% ↑

2. Program mode(press M for 3seconds to enter program mode, press M for 10seconds to cancel it and single mileage will back to 0 , the mode will change to the mode that the value back to 0 when starting)

1) Under program mode, the keys instruction as below：

M set	Change page	+ − Adjustment key

2) Program mode operation：

	Function program	Operation method	Remark
1	Wheel diameter setting(inch)	● "total mileage" windows show **HEEL** ● Press + − to change the setting value, the value will show**16→ 18→ 20→ 22→ 24→ 26→ 28→ 29→ 30** under speed windows(take inch for unit) ● Press for storing and changing page, press for 3seconds for storing and jumping to main windows	Default value 26" (16 ~ 30)

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2	Speed unit setting English/metric	● Press , "total mileage windows" will show **unit** ● Press to change the setting from **km** to **mile** when under speed windows ● Press for storing and changing windows, press 3seconds for storing and change to main interface	Default value km (km、mile)
3	Total kilomters Delete 0 setting	● Press to change windows, "total mileage" windows will flash ● Press 1second, you can delete total mileage to "0" ● Press for storing and changing windows, press 3seconds for storing and change to main interface	
4	Recovery to manufacturing setting	● Press to the windows that total mileage will **dEF** ● Press 1 seconds to recovery to default setting ● Press for storing and changing windows, press 3seconds for storing and change to main interface	

3. Other function(the functions that can't setting on LCD)

●TRIP windows' decimal point will flash when out of connecting with brake power off system
●LCD is not working or riding within minutes, LCD will auto power off and enter dormancy mode
●Under program mode and no operation within 15seconds, systems will auto back to main interface

4. LCD CODE UNUSUAL DISPLAY LIST :

LCD	reason	Trouble shooting method	remark
A_1	Li-battert' s voltage is too low 36V system: under 32V	Check the battery power, replace batter or charge the battery	
A_2	Brake is stuck or short circuit	Check if the brake is stuck , take off brake wire	Start and testing for 2 seconds
A_3	Accelerator is stuck or short circuit	Turn the accelerator to the original position and auto back to normal condition	Start and testing for 2 seconds
A_4	AB SENSOR is no signal or no phase	Check if the AB8 magnet distance is too big or without signal and can' t connecting well	Start and testing for10 seconds
A_6	Control temperature is over 70℃	Turn off power and wait for temperature down ,then it will auto back to normal	
A_7	Motor is unusual Controller is unusual	Send back to manufactory for checking	
A_15	The connecting for LCD meter and controller is failed.	restart	

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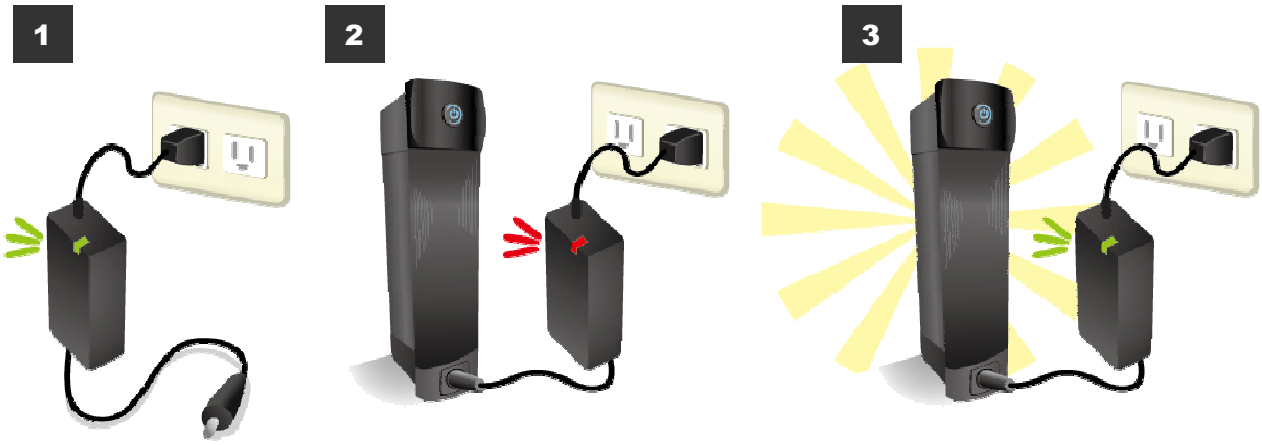
CAUTION

1. Please read this manual and safety rules thoroughly before using the Lithium battery pack.
2. The battery pack capacity should be lower than 50% when being transported according to transportation rules. Charge for 12 hours with the charger supplied before the first use.
3. Please charge with the charger supplied by original manufacturer. Do not use third party chargers
4. Battery will drain during long periods of disuse.

1. Charging Steps

- Plug the power plug of the charger into power source.
- The charger's LED indicator light will be green (as DWG 1).
- Connect the charger output to the battery pack input. After 1 the LED indicator of the charger will change to orange, (as DWG 2).
- When LED indicator changes to green light, the battery pack is fully charged. Power-off protection will start automatically and the light will extinguish (as DWG 3). Total charge time will be about 4~5 hours. An initial charge of 12 hours is required before the first use.
- After lithium battery pack is fully charged, disconnect the charger from the battery and pull out the power cord from the socket. Proper charge temperature is 0~45 degrees Celsius.



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CAUTION

1. After lithium battery is fully charged, don't leave the charger connected to the battery for extended periods.
2. This lithium battery is specified for **Manhattan** Power Assist Electric Bicycle. Don't use it with other product.
3. Insert the battery into the bicycle securely and check all the terminals connections are locked and fastened securely.
4. It is normal for the charge and battery to become warm during charging.
5. When not in use for extended periods of time keep the battery in a well ventilated area and recharge it once a month to maximize battery life.

2. Specification of Lithium Battery

- Standard Voltage:DC36V
- Standard Capacitance:8.8Ah
- Voltage Range:DC30.0V ~ 42V
- Maximum Output Current:15A

3. Attachments of Lithium battery:

- Power Cord X 1 piece
- Charger X 1 piece
- Charger Spec: Input 100 ~ 240VAC，50/60Hz，1.2A
  Output 42V，2.0A

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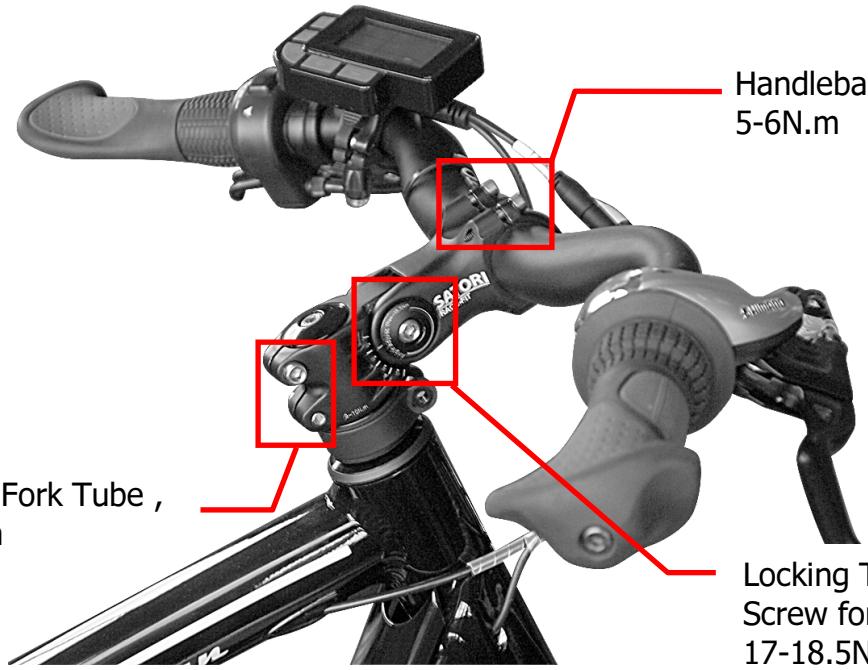
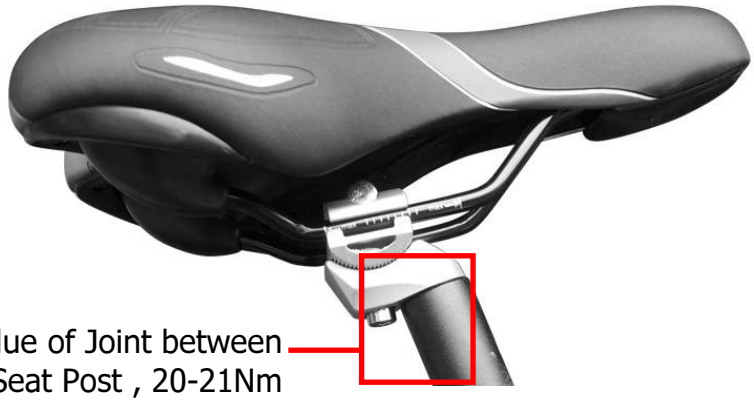
Recommended Torque Value



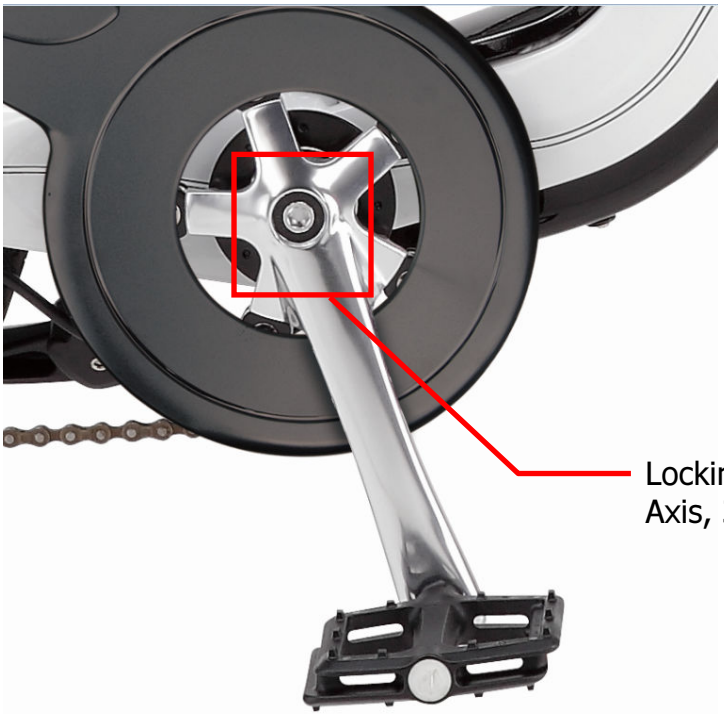
Handlebar to Stem, 5-6N.m

Stem to Fork Tube , 9-10N.m

Locking Torque Value of Screw for Adjusting Angle, 17-18.5Nm



Locking Torque Value of Joint between Seat and Seat Post , 20-21Nm



Locking Torque Value of Axis, 380-420Kg-m

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Care and Maintenance

Electric Bike Maintenance and Storage

- Bring the bicycle in to an authorized repair shop for periodic maintenance
- Check whether brakes and tires are in good condition.
- Clean the metal parts of the bicycle with soft cloth and lubricate parts where necessary.
- Keep tires inflated to the pressure indicated on the tire wall.
  (Tire Pressure Range: 40 psi)
- Store the bike indoors or in a protected area.
- Prolonged exposure will shorten the life of your bicycle.
- If unused for prolonged periods charge the battery once a month and store in a well ventilated area
- Inspect your bike and lubricate the chain regularly.
- Keep lithium battery pack dry.
- Do NOT insert any metal objects (such as wires, copper coins, clip) into the battery.
- Only use charger supplied by the manufacturer or authorized dealers.
- Do NOT knock the battery pack for it may cause damage to battery and circuit.
- If battery pack reaches a high temperature while using or charging, stop using it and contact the dealer.
- Check the rusty position carefully if there is any crack. Rust will result in crack and damage of the bodywork and its components.
- Clean your favorite bicycle and lubricate the components. Keep your bicycle away from corrosive objects, such as salinity.

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Maintenance

Many factors will make the parts to become damaged loose or worn out while using this power assist electric bicycle. If you don't inspect it regularly, it will shorten the life of the bike. New bicycles should be inspected carefully after 2 months. Future maintenance should be done every 6 months.

Maintenance Items and Interval
Symbol definition: Adjustment(◆) Inspection(■) Tighten:(▲) Lubricate:(●) Replace:(★)

Maintenance Items	New	2months	6months	1year	1.5year
Tire pressure	◆	◆	◆	◆	◆
Saddle height and angle, Upright height	◆▲	■	◆	◆	◆
Front fork revolving,	▲	■	■▲	■▲●	■▲
pedals and BB principal axis	▲	■	■●	◆■	◆■●
front wheel motor axes and rear wheel inner shift hub	▲	■	■	◆■	◆■
chain tension	◆	■●	■●	■●	■●
front and rear brakes	◆	■	◆	◆■	◆■
brake handle (grip distance).	◆	■	◆■	◆■	◆■
brake block wear	▲	■	■	◆■	◆■★
large and small Crank set		■	■	■	■
wheel rim distortion	◆	■	■	◆■	◆■
spokes		■	■	◆■	◆■
frame and front fork		■	■	■	■
All screws	▲	■	■	■	■

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Specification

Color	Black	
Size	26″	28″
Frame	6061 AL Alloy	
CrankSet	Gear 44T 1/2″ x3/32″ x170mm	
R/Derailleur	Shimano RS-43-7R	
Shifter	Shimano RS-43-7R	
Chain	1/2″ x3/32″	
Brake	F/R Disc Brake	
Handle Bar	L=600mm H=38mm Al Alloy	
Stem	28.6x31.8x100mm AL Alloy	
Seat Post	Φ30.4x300mm AL Alloy	
Wheel Rim	14G 26″ x36H-AV BK/CNC	14G 28″ x36H-AV BK/CNC
Spoke	13G Stainless, Brass Nipple	
Tire	G701 26"x1.95C A/V BK	G701 28"x1.95C A/V BK

Power System Specification

Motor	36V 500W DC Brushless Hub Motor
Battery	36V 8.8Ah Lithium Battery
Charger	42V 2A Charger
Display	LCD console
Sensor Device	Speed Sensor

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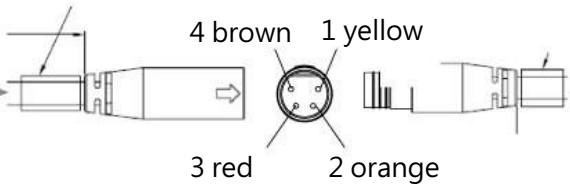
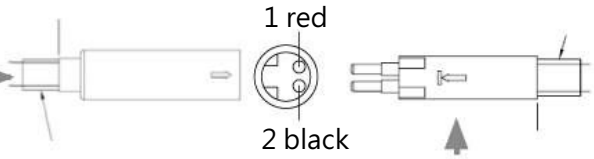
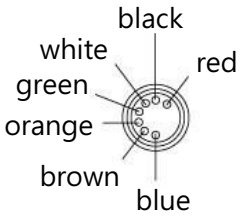


1 brown GND
2 red 5V
3 orange SNB
4 yellow SNA



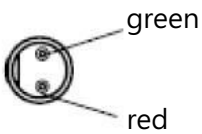
1 red 24V (positive pole)
2 black GND (negative pole)

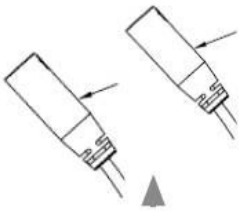


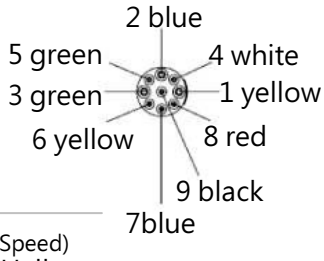
1 gray BKS
2 green GND

Lower controller

black GND
red 5V
white HS signal
green spare
orange spare
brown spare
blue spare

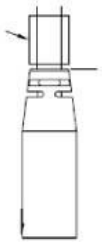


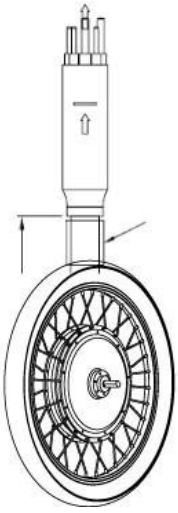




1 yellow U
2 blue V
3 green W

4 white LSN(Speed)
5 green HW Hall
6 blue HW Hall
7 yellow HW Hall
8 red 5V
9 black GND





1 brown GND
3 yellow A
2 orange B
1 red 15V

Circuit Diagram

V1.0 2013/6/5